

tier drug benefit plan at a managed care plan in Toledo-Ohio, were reviewed retrospectively. The top ten therapy classes based on net costs to the health plan were selected for analysis. The records for these classes were extracted using the Rx Clients Report v 5.0 software at the health plan. Data were analyzed using Microsoft Excel 2000.

RESULTS: On average 1) PMPM ingredient costs increased 16.5% for the preferred drugs and decreased 7.4% for the non-preferred drugs; 2) PMPM utilization increased 19.3% for the preferred drugs and decreased 12.7% for the non-preferred drugs and; 3) Ingredient cost per prescription increased 2.8% for the preferred drugs and also increased 4.7% for the non-preferred drugs. The increase in the PMPM ingredient costs and PMPM utilization maybe due to the utilization of the most expensive preferred drugs on the formulary. The ingredient costs per prescription were not skewed either towards the preferred or the non-preferred drugs.

CONCLUSION: The implementation of a three-tier drug co-payment caused a decrease in the PMPM ingredient costs and PMPM utilization of the non-preferred drugs. It generated cost-savings to the managed care plan over a period of two years by shifting the members from high cost non-preferred drugs to the lower cost preferred drugs.

PHP30

PRACTICAL ASPECTS OF DESIGNING AND CONDUCTING PHARMACOECONOMIC STUDIES IN JAPAN

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Economic evaluation of medical technologies in Japan is challenging because of a lack of data sources.

OBJECTIVE: This paper reviews the data sources available for conducting pharmacoeconomics research in Japan, and discusses health policy reforms that may increase the demand for pharmacoeconomics studies in the future.

METHODS: A literature review of pharmacoeconomic studies was conducted in both English (MEDLINE OHE-HEED) and Japanese publications (JAPICDOC) to identify the typical data sources used in these studies. Reflecting on first hand experience conducting outcomes research in Japan, we summarized (percent of studies utilizing the different data source types) and commented on the data sources.

RESULTS: A total of 42 published studies were found in the Japanese and English literature from 1980–2001. Typical sources identified for resource utilization data included: clinical trials (62%), epidemiology/case studies (43%), patient chart reviews (52%), expert panels (12%). Sources for clinical efficacy or disease state transition probabilities included: clinical trials (60%), epidemiology/case studies (36%), patient chart reviews (29%), expert panels (12%). The cost data sources identified were: 1) national uniform reimbursement fees (98%)—

Japanese Ministry of Health, Labor and Welfare (MHLW), 2) micro-cost studies (2%). The MHLW uniform fees represent costs from the health insurance plan viewpoint, and therefore are relevant in drug price negotiations with the MHLW. Demand for pharmacoeconomic data may increase because of: 1) upcoming MHLW pharmaceutical pricing and/or health insurance system reforms; 2) new regulatory committees e.g. NICE. **CONCLUSION:** Access to data sources for pharmacoeconomic research is generally known to be limited in Japan, however several published studies effectively overcame such limitations. Compared to other countries, however, detailed population-based data are still relatively unavailable. Upcoming health care reforms may increase the demand for pharmacoeconomic data in Japan, thus, increasing the demand for better sources of data typically needed for these studies.

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OUTCOMES AND COSTS OF ACUTE TREATMENT OF TRAUMATIC BRAIN INJURY

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OBJECTIVE: Although there are nearly a quarter of a million hospitalizations for traumatic brain injury (TBI) in the U.S. each year, economic data on TBI treatment are limited. The purpose of this study was to estimate the outcomes and costs of acute inpatient treatment of TBI.

METHODS: Using a large, geographically-diverse, multi-hospital database, we examined inpatient records for persons aged 16 years or older who were hospitalized for TBI between January 1, 1997 and June 30, 1999. Patients were stratified by TBI severity using an adaptation of the Abbreviated Injury Scale for administrative data (ICD/AIS), as follows: 2, “moderate”; 3, “serious”; 4, “severe”; and 5, “critical”. Patient characteristics, patterns of treatment, and outcomes and costs were examined by injury severity and mechanism of injury. Costs of treatment were estimated from billed charges using cost-to-charge ratios from the Medicare Prospective Payment System.

RESULTS: Of 8,717 study subjects identified, 12.5% had moderate, 44.8% serious, 29.6% severe, and 13.2% critical TBI. Falls were the most common reported cause of injury (40.8%), followed by motor-vehicle accidents (39.3%), blows to the head (11.3%), and gunshot wounds (2.4%). Average length of stay in hospital ranged from 6.7 days for moderate TBI to 17.5 days for critical TBI. The overall rate of death in hospital was relatively low among patients with moderate (1.3%), serious (5.7%), and severe (8.7%) TBIs, but much higher among the most critically injured patients (52.0%). Costs of hos-